

App'n Serial No.: 10/716,480

2

Att'y Docket No: US-102

IN THE CLAIMS:

Kindly rewrite Claims 1-9 as follows, in accordance with 37 C.F.R. § 1.121:

What is claimed is:

1. (cancelled)

2. (currently amended) ~~The~~ An isolated DNA of claim 1 encoding a mutant LysE protein, wherein said mutant is ~~a protein~~ selected from the group consisting of:

A) a protein ~~which has~~ comprising the amino acid sequence of SEQ ID NO: 2, ~~except that whereby at least~~ the glycine residue at position 56 is replaced with another amino acid residue, and

B) a protein ~~which has~~ comprising the amino acid sequence of SEQ ID NO: 2 ~~except that whereby at least~~

i) the glycine residue at position 56 is replaced with another amino acid residue, and one or several

ii) not more than 10 amino acid residues at positions other than the 56th residue are substituted, deleted, or inserted or added, ~~wherein said mutant and when said mutant is introduced into a methanol-assimilating bacterium, said mutant imparts resistance to a L-lysine analogue~~ S-(2-aminoethyl) cysteine when introduced into said methylotroph.

3. (currently amended) The DNA of claim 2, wherein said DNA is selected from the group consisting of:

A) a DNA which has the nucleotide sequence of SEQ ID NO: 1, ~~except that whereby a mutation which~~ results in replacement of at least the 56th glycine residue of the encoded protein with another amino acid residue; and

B) a DNA which is hybridizable with the nucleotide sequence of SEQ ID NO: 1 under the stringent conditions comprising washing in 1xSSC and 0.1% SDS at 60°C., or a probe prepared from said nucleotide sequence,

~~and when said DNA or said probe is introduced into a methanol-assimilating bacterium, said DNA or said probe encodes a protein which imparts resistance to L-lysine analogue.~~

4. (currently amended) The DNA of claim 2, wherein said ~~other amino~~

App'n Serial No.: 10/716,480

3

Att'y Docket No: US-102

~~acid~~glycine residue at position 56 is replaced with a serine residue.

5. (cancelled)

6. (currently amended) The DNA of claim 12, wherein said ~~methanol-assimilating bacterium~~methylotroph is a bacterium belonging to the genus *Methylophilus* or *Methylobacillus*.

7. (currently amended) A bacterium comprising ~~belonging to the genus~~ *Methylophilus* or *Methylobacillus*, ~~into which the DNA of claim 12 in an expressible form is introduced,~~ wherein said bacterium belongs to the genus *Methylophilus* or *Methylobacillus*, and wherein said bacterium ~~which~~ has L-lysine or L-arginine producing ability.

8. (withdrawn; currently amended) A method for producing L-lysine or L-arginine comprising the steps of

A) culturing the bacterium of claim 7 in a medium ~~to produce and accumulate L-lysine or L-arginine in the culture,~~ and

B) collecting L-lysine or L-arginine from the culture.

9. (withdrawn) The method for producing L-lysine or L-arginine of claim 8, wherein the medium contains methanol as a ~~main~~major carbon source.